Fact Sheet

State Water Resources Control Board
California Environmental Protection Agency

Boating & Marinas Fact Sheet

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Introduction:

It is crucial for protecting our environment when servicing, cleaning, or maintaining your boat, to never let anything from your boat reach any of the State's waters. To assist everyone in reaching this goal, boating and marina Best Management Practices (BMPs) have been developed to address the following topics:

1. Used oil management
2. Fueling
3. Oil or fuel spills
4. Sewage discharges
5. Boat cleaning & maintenance
6. Trash & litter; & hazardous waste

Very extensive information on these individual BMP's & on the topics below can be found on the University of California Cooperative Extension Sea Grant Extension Program 'Boating Pollution Prevention Tips' web site at:

http://commmserv.ucdavis.edu/cesandiego/seagrant/boating.htm.

What follows is meant to be helpful summarized information, not a separate in depth treatment of these important subjects and practices.

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Preventing Fuel Spills

To avoid unnecessary and damaging fuel spills, do not 'top off' your tank. Calculate how much your fuel tank will hold, and slow down as this limit is approached. You can also use relatively inexpensive fuel surge protectors and fuel/air separators to avoid spills.

Never pump oil or fuel contaminated bilge water overboard, and dispose of drain oil properly. Always recycle your drain oil, and never allow it to reach any of our state's waters.

Marina owners can provide receptacles for recycling motor oil and oil filters.
They can also distribute oil and fuel absorbent pads to clean up accidental spills.

Keep engines and final drives well-maintained, & free from oil and fuel leaks.

Use oil and fuel absorbent pads in bilges (but keep pads from clogging bilge pump intakes).

Other examples of more specific applications follow.

Boat Cleaning

When cleaning or maintaining your boat or other watercraft, never let anything spill or be dumped into any of your State's waters! If you hire someone to clean your boat, make sure their procedures are also environmentally sound.

You can rinse boat with high pressure freshwater after each outing to reduce the need for frequent thorough cleaning.

State Water Resources Control Board, Regional Water Control Board, 2002

Boat Cleaning (Continue)

For occasionally needed thorough washings, then; use small amounts of phosphate free, biodegradable cleaners. Note these are still toxic to some aquatic life; biodegradable simply means they will eventually break down into non-toxic components, although usually considerably slower in cold water than in warm water.

For the thorough occasionally needed boat cleaning, use alternative (to strong chemical cleaners) low toxicity cleaners whenever possible. For example; borax & lemon juice can be mixed into a paste to remove grease.

Clean & deodorize the head with ½ cup borax per gallon of water, or use baking soda and water. You can also sprinkle extra baking soda around as a deodorant for in between cleanings. Remember all rinse water and wash waste water needs to go to a sewage treatment facility via a connected drain system where it can be treated & only then released into the local environment.

Try to clean boat surfaces while the boat is out of the water; as this will make it easier to avoid accidental spills of cleaning materials, chipping and sanding dust, or other material from your boat, and easier to contain wash and rinse water for disposal in a drain leading to a water treatment plant.

Preparing to Paint or Varnish the Boat

It is critical to keep all antifoulants out of the water, as they are very toxic to aquatic life; especially those containing tributyl tin.

Therefore, keep all chips and scraping dusts out of the water, and off any surfaces that lead to water, including work areas which may or will later possibly be washed down by someone else. You can drape tarps for this purpose from the boat to the dock.

Use vacuums connected to any sander or other pieces of equipment you use that generate fine dust. Use a shop vacuum to clean up sanding and scraping debris from any wet surfaces. Keep in mind it is better to avoid this debris scattering happening in the first place, of course.

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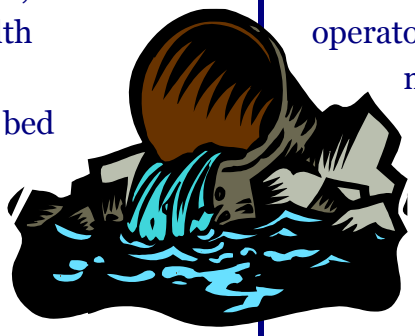
Sewage Discharge:

One single discharge of human waste can contaminate up to a square mile of shallow enclosed waters such as boatyards, harbors and enclosed bays. Warmer waters and human contact recreational users nearby only make the situation yet more regrettable. Make sure this accident never occurs, as this is not only an environmental concern, but also a human & wildlife health concern. Both beach closures and shellfish bed closures, which are a serious issue now in California, can and too frequently do result from human waste contamination of shallow waters.



Federal law also prohibits discharge of sewage into navigable U.S. waters. The same 'no discharge' rule applies to inland reservoirs and lakes, as well as rivers. Again, there are both human & wildlife health and environmental considerations here.

Make a habit of using your marina's vessel holding tank pump out station, and the dump station for disposal of sanitary waste. For their part, marina operators should keep these facilities in good repair, well maintained, serviced often, and with clearly posted and easy to use operating instructions.

In addition, marina and boatyard operators should provide written material to customers which detail legal and environmental requirements for disposal of boat wastes. Arriving boaters can also be required to check in with the harbormaster, who can place dye tablets into the boat's holding tanks. This dye is easy to detect if it ends up in the water.

Boaters who discharge dye marked waste solutions into confined waters can then be fined, or banned from the harbor where the violation occurred.

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Hazardous Waste:

Marina operators can provide separate collection facilities for the disposal of hazardous fluids and solids. These should be labeled to identify hazardous substances typically encountered in marinas, as many customers do not release the hazardous nature of some materials they commonly handle in association with recreational boat use and maintenance.

Paint chips, sanding dust, used motor oil and filters, used transmission fluids, engine coolants, antifreeze and freon, rags used to absorb oil or to clean oily equipment, paint, spent zinc anodes, any spilled solvents and fuels, metal or paint dusts, used crankcase lubricating oil, and used lead acid batteries are ALL hazardous wastes.

All these hazardous substances are critical to dispose of properly. You can use 'Earth's 911' :

http//:www.earth911.org/

to locate a hazardous waste collection facility in your area, if your marina doesn't provide a hazardous waste collection tank and/or bins, or ask the harbormaster. Some marina operators may have hazardous waste disposal facilities on the premises as both a convenience to customers, and as a Best Management Practice (BMP) to reduce water pollution.

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Litter and Trash:

Litter and other kinds of floating or partly submerged trash and/or debris, often hazardous to wildlife and/or human health, may also be a problem for recreational boaters. Nearby human contact water recreators are also at obvious risk.

Litter can clog cooling water intakes, and can physically damage hulls, props, & running gear, as well as fishing equipment. Both marine and freshwater wildlife often confuse some floating and semi-submerged trash and debris with healthy food sources, and are injured after taking the debris into their digestive systems. Wildlife parents can also inadvertently lead their young to feed on harmful trash in the waters.

Plastic debris in particular has been found to cause wildlife starvation or suffocation. Plastics can also lead to a more gradual debilitation leading to all sorts of additional health problems, reproductive failure, and early death for numerous wildlife species. These materials include plastic fishing line, netting, six pack rings, plastic bags and pieces of the same. In addition, the nicotine in cigarette butts is also poisonous to wildlife. The nicotine in cigarette butts is also poisonous to young children which, of course, remains a serious consideration in any area where both cigarette butts and human youngsters can be found.

To prevent these unfortunate occurrences from multiplying further, all boats should have trash receptacles aboard, as well as some means of retrieving other litter from nearby waters, whether this litter is from your own boat or not. Marina operators can both provide trash and recycling receptacles, and also net

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clean the near dock waters as part of regular maintenance & to reduce any navigation hazards and to spread the litter prevention message.

The invasive marine weed Caulerpa Taxifolia, known colloquially as 'killer algae', should be taken off boats, and then sent to your region's Regional Water Quality Control Board (RWQCB) for identification, or frozen for 24 hours and then disposed of where it can't get back into any of our waters. See the State Water Board web page at : http://www.swrcb.ca.gov for the contact information for your regional (RWQCB)

Questions and Comments:

For more information on the state's Nonpoint Source Program, see our website:

http://www.swrcb.ca.gov/nps/index.html